Henrik Kellgren and his Methods of Manual Treatment

BY

EDGAR F. CYRIAX, M.D.

[Reprinted from "The Boston Medical and Surgical Journal," Oct. 10, 1907]

London

JOHN BALE, SONS & DANIELSSON, LTD.

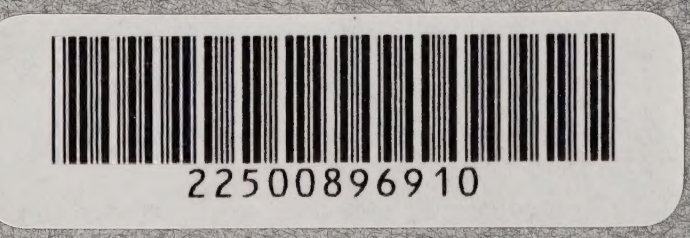
OXFORD HOUSE

83-91, GREAT TITCHFIELD STREET, OXFORD STREET, W.

1908

WELLCOME INSTITUTE
LIBRARY
Medical
Heritage
WB 460
1967
C994

CYRIAX


22500896910

KELLGREN LIBRARY INSTITUTE

HENRIK KELLGREN AND HIS METHODS OF MANUAL TREATMENT.

By EDGAR F. CYRIAX, M.D., London.

Although it may truly be said that the name of Henrik Kellgren is known almost throughout the civilized world, yet it must be conceded that few persons know anything definite about the man or the methods of treatment he employs. The following brief sketch of his life is intended to supply the particulars hitherto lacking.

Henrik Kellgren, born in 1837, at Alingsas in South Sweden, matriculated in 1855, and in 1858 became an officer in the Swedish Army. From 1863 to 1865 he went through the course of training at the Royal Gymnastic Central Institute in Stockholm, and in the latter year received the diploma, whereupon he accepted a post as teacher of pedagogical gymnastics in Lidköping. It was in the latter place that he obtained his first case for treatment by medical gymnastics, and already at this early period he realized how important it is to give not merely local, but also general treatment (of this more hereafter), but owing to his preoccupation with military duties, he was not yet led to develop any great interest in the subject of medical gymnastics as a whole.

At this time a series of troubles fell upon him, and the death of his wife and only son changed the course of his life. Leaving his native land, he went to Germany with the intention of proceeding to Algiers, where the French

were then in conflict with the insurgent Arabs. At Bremen he became acquainted with a medical gymnast, Dr. Ulrich, with whom he stayed for some weeks. This Dr. Ulrich was the first to recognize in young Kellgren the great natural aptitude for medical gymnastics, which afterwards developed so remarkably ; and he urged him to devote himself to this new career. In the end, Kellgren was prevailed upon, and in the year 1869 he settled in Gotha, in Thuringia, as medical gymnast.

He naturally began to treat on the lines laid down in the Royal Gymnastic Central Institute, but his real talent, aided by instinct, soon led him to remodel several of the exercises on his own account. He further perceived how much good could be effected through direct stimulation of the nerves ; consequently, he gradually developed a nerve treatment, consisting chiefly of frictions and vibrations, which he used in combination with improved active and passive (inclusive of duplicate) movements ; and by these means he has treated with unexampled success a number of chronic cases of which some had been previously regarded as incurable. He has also attacked acute cases with wonderfully favourable results.[1]

Kellgren's fame soon spread abroad, and his practice grew enormously. His methods would, without doubt, have been widely taken up at this time by German doctors, but that, owing to illness from overwork, Kellgren was obliged to retire from active work, and when his health broke down he, for various reasons, decided to come to London. Here, on his recovery, he established an important institute, and later on founded others also at

[1] See Wretlind, "Bref från Dr. Wretlind," *Hygeia*, Stockholm, November, 1872—February, 1873, and Glatter, "Allgemeine Betrachtungen über den Werth der Heilgymnastik," *Wien. Med. Presse*, 1875.

Norderney (1877), Baden-Baden (1883), and Paris (1884). During the summer of 1886 he went, followed by a number of patients, to Sanna, near Jönköping, in Sweden, where he established a summer sanatorium,—now open all the year round, and where Kellgren himself often passes the greater part of the year.

Thousands of people owe their health to Kellgren, and some still live, who, at one time of their life, were regarded as utterly incurable. To how great an extent his successes have contributed to make medical gymnastics known and valued throughout the world is incalculable.

Although Kellgren's treatment has existed for more than thirty-five years, the literature relating to it has hitherto been scanty. Apart from a few newspaper articles which often contained erroneous accounts of Kellgren and his practice, Dr. Arvid Kellgren's work, "Vorträge über Massage," ("Lectures on Massage," 1888), was the first to contain descriptions of some of his brother's exercises. In 1890 this book was translated into English, being amplified with descriptions of several more cases treated successfully by the Kellgren methods.

This was for some years followed by nothing of any importance, and, in consequence, I was led to publish my book entitled "The Elements of Kellgren's Manual Treatment," which claims to be the first attempt at a systematic and scientific description of the subject.

It is probably due to the paucity of information obtainable as to Kellgren's methods that so many errors are prevalent with respect to them. Thus, some authors have been under the impression that the treatment consists wholly of vibrations, while others have believed that there is in it nothing more than hypnotism; since both these ideas are contrary to fact, it is obvious that those who held them had a most inadequate knowledge of the subject

under review. The Kellgren treatment is based (a point I desire particularly to emphasize) on a scientific foundation, physiological and anatomical; and it is to be hoped that the profession may soon convince themselves of its true value.

In the following pages, I have aimed at describing the difference between the methods of Kellgren and those of Ling, or rather at indicating the progress achieved by the former beyond the latter.

Unfortunately, at the present time, both in Sweden and elsewhere, the handbook of Wide is regarded as authoritative on the subject of Ling's methods as practised to-day; I say unfortunately, for it describes them in a form which, compared with earlier practice, shows distinct retrogression.

Most of the following descriptions are contained in my book; but, as the latter has only recently appeared and is not as yet widely known, such repetitions as I have indulged in will not be superfluous.

I.—Kellgren assigns particular value to the mechanical treatment of the nerves. This was formerly regarded as of very slight importance, P. H. Ling alone using a form of nerve pressure.[2] Branting (1844) brought forward as a novelty pressure of the phrenic nerve and lumbar nerves, and also (1846) of the spinal accessory and the sacral nerves. Somewhat later, nerve pressure, either with or without simultaneous vibrations, came more into use, but apparently without achieving any important results. The enthusiastic Neumann said in 1852: "This is a part of Ling's doctrine which his pupils have least worked out, although they and Branting are well aware that it is of

---

[2] We must, of course take into consideration the great progress made in the physiology of nerves between the eras of Ling and Kellgren; but this does not diminish the value of the modifications and discoveries made by Kellgren.

the greatest importance; but its development is proportionately difficult, because the physiological groundwork has so far been investigated only very insufficiently, and in part not at all." But in 1856, only four years later, he revised his verdict, saying: "I for my part consider now that these forms of movements can very well be dispensed with, as they can entirely and very advantageously be replaced by duplicate concentric movements." In the handbook of Hartelius (1870) pressure of the arm and leg nerves only is described, and but twenty lines are devoted to this subject in a volume of some three hundred and fifty pages. It should be added that here and there a few other nerves are specified as being suitable for similar treatment.

A few of the different forms of nerve friction and vibrations were described by Arvid Kellgren, and since then have been used by medical gymnasts, but without any acknowledgment of their source. In my book I have described Kellgren's form of nerve treatment in considerably greater detail.

The great merit of Kellgren has been his correct development of the processes referred to; in particular, he discovered that the main point of importance was not the pressure, but the mechanical movement set up in shaking the nerves through friction and vibration. And it was he who introduced manipulations following the course of the nerves, which manipulations are called "running nerve frictions and vibrations."

When we consider how everything in the human body is under the influence of the nerves, and how many illnesses have their origin, not in the muscles, but in the nerves, it will easily be understood that nothing can be of so great service in these cases as movements of stimulative or sedative effect. Not only the cerebrospinal nerves can be

directly treated by Kellgren, but also the sympathetic nerves. Before his time attempts had been made to deal in this way with the solar plexus and the cervical ganglia, but this was of rare occurrence, and in the handbook of Hartelius, for example, the subject is scarcely mentioned. Kellgren, however, discovered that it was possible to deal directly, or indirectly, by reflex action, with almost all sympathetic ganglia through the peripheral nerves that are in connection with them. Thus, for example, all the chest ganglia stand in direct physiological relation to the posterior branches of the dorsal nerves; through the latter the heart can be influenced through the fourth and fifth dorsal nerves on the left side; the liver through the sixth and seventh on the right side, &c.

The value of these forms of nerve-treatment can scarcely be overrated, and it is most remarkable what favourable results can be obtained by them in acute cases; it can, indeed, be safely stated that without them such results would be unobtainable. The same applies to central nervous diseases, *e.g.*, bulbar paralysis, multiple sclerosis, spastic paraplegia, locomotor ataxia, tabes dorsalis, hydrocephalus, &c.

II.—For other parts of the body as well as for the nerves, Kellgren's vibrations and shakings, such as chest shaking and eye vibrations, are of great importance. In all the earlier literature of P. H. Ling, Branting, Rothstein, Roth, Neumann, &c., but a few lines are to be found dealing with such methods, and Hartelius also (1870) refers only briefly to shakings. These movements must consequently up to that time have remained quite undeveloped.

It was Kellgren who succeeded in working out—one might almost say who discovered—this new and splendid method of combating pain and disease. He also dis-

covered the method of executing the vibrations in a manner involving the minimum of fatigue to the operator, so that they could be maintained for much longer periods, and at the same time with greater efficiency. For example, when the fingers are executing a vibration, the muscles in actual use should hardly be felt to contract. Only in a few cases, in which a particularly strong effect is desired, should the muscles of the upper arm or shoulder come into action. Unfortunately, medical gymnasts in general use only this latter method.

These vibrations can be executed either quickly or slowly. The maximum rate is about twelve per second.

Certain quite new forms of shaking and vibration have been developed by Kellgren, such as the following :—

(1) So-called "suction-vibrations." The manipulator spreads out his fingers (fig. 60 in my book) so that they lie on the patient's skin around the spot to be manipulated; they are then set into vibration while the finger joints are slowly flexed, causing the pressure on the skin gradually to increase. Such methods make it possible to treat the thyroid gland in Graves' disease, to accelerate the pointing of an abscess, &c.

(2) "Centrifugal running vibrations." These are running vibrations in a direction contrary to that of venous blood and lymph flow. These manipulations make it possible to treat lymphangitis, erysipelas, and to hinder the upward absorption of toxins.

These two new forms, together with the more ordinary forms of Kellgren's shakings and vibrations, are described in my book in considerable detail.

III.—During the last twelve or fifteen years, mechanical vibrators have come largely into favour. The advocaters of these "vibrators," "concussors," &c., maintain that the movements are rendered easier of administration, as they

obviate exertion on the part of the gymnast; that they may be administered with perfect regularity as long as necessary; and finally, that they may also be administered more rapidly. Some "vibrators" execute up to 200 vibrations per second.

That a greater rate than twelve per second should be of any advantage seems to me very doubtful. It must, of course, be conceded that a "vibrator" makes less demand on the manipulator, and its use is comprehensible when we consider that in general the vibrations as administered at present involve strong contraction of the arm and shoulder muscles, demanding great physical exertion, and are consequently only to be maintained for short periods at a sacrifice of sureness and delicacy of touch. As, however, the Kellgren vibrations (as already stated) are produced with a scarcely perceptible contraction of the muscles, the gymnast can execute and maintain them as long and as evenly as may be desired. I have myself never executed such vibrations for more than one hour and three-quarters continuously, but I am certain that I could maintain them for a much longer period; the necessity for this, however, could but seldom arise.

The superiority of the Kellgren vibrations lies in the fact that the gymnast preserves the delicacy of his sense of touch, and is thus enabled at will and with great accuracy to vary the vigour, extent, and rapidity of the movement, as well as the degree of pressure, whenever the condition of the patient indicates such alteration.

In certain cases characterized by a considerable amount of pain, *e.g.*, acute inflammations of the eye, abdomen and appendix, vibrations produced by machinery are entirely out of the question, as the machine can neither judge by touch nor adjust itself. In consequence of this it has become the practice in certain medico-mechanical

institutes in certain cases, as when treating the head or neck, to interpose the gymnast's hand between the vibrator and the part to be manipulated.

Kellgren makes use of many new manipulations, and besides this he has modified already existing exercises. These modifications are difficult to specify exactly, and it is necessary to have technical experience in order to grasp fully the differences from—and advantages over—earlier methods. The following may be specified in particular :—

(1) The so-called " Head exercise." Roth and Neumann speak of head-shaking that lasted for some seconds and was combined with passive head-rotation. In time, however, this manipulation fell into disuse and oblivion ; the handbook of Hartelius does not mention it. Kellgren reintroduced the head exercise and developed it further. The following form is used in fever cases :—

(*a*) Head-lifting.

(*b*) Vibrations or other manipulations on the head with both hands simultaneously.

(*c*) Nerve frictions or vibrations, local or general.

(*d*) Repetition of head-lifting as conclusion.

(2) Passive movements for the liver, gall-bladder, pancreas, kidneys, spleen, &c. (described in detail in my treatise).

(3) Gymnastic treatment administered during childbirth, as well as during the puerperal state, to combat loss of blood, and as a preventive of puerperal fever.

(4) Modifications of many movements to render possible their use in acute cases ; of this, more hereafter.

IV.—It is at present the custom to make great use of massage only—*i.e.*, stroking or kneading—active movements being greatly neglected. Also vaseline and other fatty substances have come into considerable use in connection with massage ; this was in earlier times unknown

in the Ling school. Kellgren, on the other hand, assigns small value to such stroking and kneading, nor does he ever use vaseline or similar preparations ; his grounds are the following :—

(1) With vaseline the movement of the fingers employed in massaging is reduced to a gliding over the skin, the tissues underneath being but little influenced. In the Kellgren method, the fingers of the gymnast remain in contact with the skin, and thus they are enabled to really manipulate the parts beneath.

(2) In consequence of the massage process the vaseline is rubbed into the opening of the sebaceous and sweat glands, with the result that massage eruptions are often induced, necessitating interruptions in the treatment.

It must further be conceded that, in the long run, massage has a weakening effect on the muscles manipulated. Kellgren administers kneading for only very brief periods at a time, and attaches more importance to duplicate movements, nerve-treatment, and vibrations. And Kellgren dispenses entirely with the modern so-called "general massage."

V.—In all resisted exercises, and in all passive movements involving movements of joints, Kellgren, where possible, makes use of the so-called "traction" ; that is, the gymnast, during the movements, effects a passive stretching of the part manipulated, drawing the distal free end from the proximal fixed one. That in many cases a considerable extra effect is attained by these means will become strikingly clear on performing a movement first without, and then with, traction. This traction has been hitherto only described by Arvid Kellgren and myself.

Without "traction" it would in many cases of partial anchylosis, inflammation of joints, &c., be impossible to make use of any duplicate movements, while, by its aid,

it is often possible to induce in paralyzed muscles a slight voluntary movement that would otherwise be unobtainable.

VI.—In all cases of local disease (except a few of mild character or short duration) Kellgren considers a certain amount of general treatment to be of benefit to the general health of the patient, and this for the following reasons :—

(1) In the normal healthy body are contained many toxins and excretory products, which are, however, accompanied by no evil results because the body is able to eliminate them. So soon, however, as it becomes unable to do so, there result states of general or local illness, and the general treatment is of great use in restoring the lost power to eliminate.

(2) A local illness acts as a centre for producing toxins and excretory products, and more work than usual is demanded of the body to get rid of such accumulations. The general treatment facilitates this work.

(3) Toxins and excretory products that are of local origin, and are only treated locally, always show a tendency to settle in other weak parts of the patient's system and to give rise to fresh morbid states. The general treatment hinders this.

(4) It may happen that only by means of the general treatment can the cause of a particular illness be not only discovered but removed. An inflamed ovary, for example, can, in course of time, through continual irritation of the muscles lying above it, causes a spinal curvature, and it would be an error to deal with the latter (subjective) affected part without, at the same time, administering treatment for the (objective) true source of illness. It would be easy to maintain the proposition above set forth by a long series of examples.

VII.—The employment of the Kellgren treatment in acute cases, specific, infectious, or otherwise :—

Early attempts of this kind were very few in number ;[3] but already during his early years of practice in Gotha, Kellgren had worked out the treatment of acute cases and employed it with magnificent results. As early as 1873 Wretlind recorded several acute cases treated by Kellgren, and in 1875 Glatter spoke in laudatory terms of Kellgren's treatment of pneumonia. Kellgren was, in fact, the first to apply manual treatment to a great variety of acute cases that had never before been thus dealt with, and it can safely be said that no other form of treatment has led to such good results. I specify in particular the following illnesses :—

Typhus, typhoid, scarlet fever, measles, rheumatic fever, erythema nodosum, erysipelas, acute inflammation of the larynx and pleura, acute tonsilitis, appendicitis, peritonitis, gastritis, enteritis, pericarditis, meningitis, &c.

It is quite impossible in so short a paper to describe the methods used in such cases, and I must restrict myself to referring the reader to the detailed descriptions contained in the following works :—

(1) Arvid Kellgren : "Technic of Ling's System of Manual Treatment" (1890), containing eight cases. (In the German edition of this book an additional case is included.)

(2) Möller : "Zur Therapie der akuten croupösen Pneumonie" (*Deutsch. Med. Wochenschr.*, December, 1900, January, 1901), three cases.

(3) Cyriax : "The Elements of Kellgren's Manual Treatment" (1903) ; in all, thirty-seven cases.

---

[3] "Pneumonia," by Branting (*vide* his farewell address, March 31, 1847), and H. Ling in "Branting's Efterlemnade Skrifter," 1882, p. xxvi. ; "Acute Pleurisy," by Melicher (*vide* Annual Reports) ; "Cholera," by Melicher, Becker ("Denkschrift uber die Schwedische Heilgymnastik," 1864, p. 64), and others ; "Whooping Cough," by various doctors and gymnasts.

While treating acute cases by manual methods, Kellgren places no restrictions upon diet; he almost always allows the patient to eat what he happens to fancy (especially if the case has been under his care from the commencement), and he has never had any cause to regret his action in this respect. Also Kellgren generally allows the patient to leave his bed on condition that the temperature of the room is suitably warm and that proper precautions are taken against draughts, for it is his opinion that a little movement can only do the patient good. In this connection it must steadily be borne in mind that Kellgren's treatment contributes in a high degree to keeping the digestive organs and nerves in an efficient condition, in consequence of which the strength of the patient is well maintained, and he is enabled to offer considerably greater resistance to the illness. Under this treatment a patient will scarcely desire to eat what he cannot digest, nor will he desire to leave his bed if not strong enough to do so. On this subject I must also refer the reader to the experiments of Pawlow, which have shown (although not specifically in the case of fever) that the gastric juice is only secreted when food satisfies the taste. Kellgren is of opinion that to compel a patient to remain in bed against his will can only result in a lowering of his vitality, and, in addition, contribute to establishing a hypostatic congestion, especially of the kidneys, this being a condition to be particularly avoided.

VIII.—The old doctrine of the Ling school that the gymnastic treatment is more efficacious if unmixed with medicine, electricity, &c., has been largely lost sight of. Wide, for example, frequently combines medication with his gymnastics, a combination which can only seem to indicate deficiency on the part of the gymnastic treatment. A natural cure, to be really satisfactory, should not be accompanied by medicine.

This is especially true of central nervous diseases, with regard to which Kellgren has made the following observations : On the one hand, it is very difficult for the Kellgren treatment to effect much progress in cases that have previously been treated more or less unsuccessfully with electricity or strychnine, arsenic, &c. ; on the other hand, where such methods have effected some improvement, the latter has been considerably accelerated as soon as the Kellgren method was tried.

It has occurred repeatedly that cases, even of some years' standing, which have never been subjected to electricity or strong medication, were more easily influenced for good than others which were of more recent origin, but which had undergone such electric or medical treatment. It has also been observed that when certain cases, which had made good progress under the Kellgren treatment, were for some reason removed, in order to undergo a medical or electrical course, the change of treatment was ultimately for the worse.

IX.—It often happens now that a doctor who is quite ignorant of medical gymnastics has to superintend a course of such treatment. In such a case, if the patient feels somewhat worse, the gymnastic treatment is often at once suspended, the patient is put to bed, and drugs are prescribed, the gymnastic treatment being resumed only when some improvement has taken place. It is clear that under such circumstances it is impossible to judge of the efficacy of medical gymnastics.

The Kellgren treatment proceeds on very different lines. Should a patient feel somewhat worse than usual, it is often because his illness reaches some small natural crisis. If the treatment is maintained through this period, it will be found subsequently that the patient's condition has materially improved. This improved condition may some-

times continue, without any further perceptible modification, until another similar crisis supervenes. So long as this condition continues the treatment can be varied, as regards frequency, duration, and force, to suit the patient. When, however, the treatment is temporarily given up during a worse period, the crises are prevented, and as these are the means by which the body tries to get rid of disease, real improvement cannot occur if they are suppressed by enforced rest in bed, diet, and drugs.

X.—In conclusion, I wish to say a few words about diagnosis by means of palpation. This art, if I may so term it, has been particularly developed by Kellgren. It is very difficult to describe an art of this kind to anyone who has not tried it. Kellgren's skill is shown by the fact that he can feel the smallest local change in temperature, fulness, muscular resistance, &c., even when these changes can neither be seen nor measured, but that he can instinctively find the locality where the disease has its origin. This gift has been the primary cause that enabled him to achieve such brilliant results. It is certain that several of his pupils possess this power to a greater or lesser degree ; but time alone can show whether any of them can equal or legitimately succeed Henrik Kellgren.

John Bale, Sons & Danielsson, Ltd., 83 91, Great Titchfield Street, W.